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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,117	01/12/2005	Mubarik Mahmood Chowdhry	261736US0PCT	6783

22850	7590	10/22/2007
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.		
1940 DUKE STREET		
ALEXANDRIA, VA 22314		

EXAMINER	
CHEUNG, WILLIAM K	

ART UNIT	PAPER NUMBER
1796	

NOTIFICATION DATE	DELIVERY MODE
10/22/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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**Office Action Summary**

Application No.

10/521,117

Applicant(s)

CHOWDHRY ET AL.

Examiner

William K. Cheung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 7/23/07.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 14-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

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### DETAILED ACTION

1. In view of the amendment filed July 23, 2007, claims 1-13 have been cancelled, and new claims 14-30 have been added. Claims 14-30 are pending.
2. In view of the cancellation of claims 1-13, the rejection of Claims 1-13 under 35 U.S.C. 112, second paragraph, is withdrawn.

### ***Double Patenting***

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 14-30 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-8, 11-14 of copending Application No. 10/579,098, because both applications are fully encompassing each other.

This is a provisional obviousness-type double patenting rejection.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 25-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Bauers et al, [Macromolecules, 36, 6711-6715(2003)].

Bauers et al. disclose a polymer powder prepared by a process comprising emulsion polymerization of ethylene in the presence of a catalyst obtained by the contact of triphenylphosphine, di-, tri- or tetra-chlorobenzo quinone, and bis(1,5-

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cyclooctadiene)nickel in toluene and MeOH to form a catalyst solution, followed by being miniemulsified by high shear generated by ultrasound (Schemes 1-3 - page 6712). Bauers et al. further disclose that the polymerization of ethylene in aqueous emulsion is carried out by transferring the miniemulsion of the catalyst to a pressure reactor containing ethylene (Polymerization - page 6712). It is noted that triphenylphosphine instead of polar-group substituted triphenylphosphine is used – the use of the triphenylphosphine or polar-group substituted triphenylphosphine relating to the activation energy of the polymerization but not the resulting polymer. Furthermore, the case law has held that "[t]he patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698,227 USPQ 964,966 (Fed. Cir. 1985). Thus, the present claims are anticipated by the disclosure of Bauers et al.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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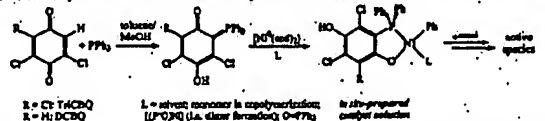
The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

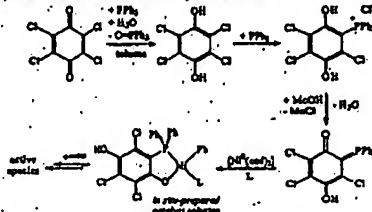
8. Claims 14-24, 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bauers et al. [Macromolecules, 36, 6711-6715(2003)] in view of Ostoja-Starzewski et al. (US 5,686,542).

Bauers et al. disclose a process for emulsion polymerization of ethylene in the presence of a catalyst obtained by the contact of triphenylphosphine, di-, tri- or tetra-chlorobenzoquinone, and bis(1,5-cyclooctadiene)nickel in toluene and MeOH to form a catalyst solution, followed by being miniemulsified by means of high shear generated by ultrasound (Schemes 1-3 - page 6712).

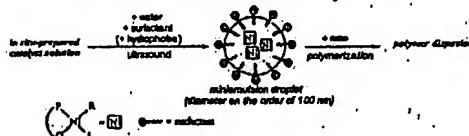
Scheme 1. Proposed Formation of the Catalyst Precursor with Di- and Trichlorobenzoquinone



Scheme 2. Proposed Formation of the Catalyst Precursor with Tetrachlorobenzoquinone



Scheme 3. Miniemulsification of the Catalyst Solution



Bauers et al. further disclose that the polymerization of ethylene in aqueous emulsion is carried out by transferring the miniemulsion of the catalyst to a pressure reactor containing ethylene (Polymerization - page 6712).

The difference between the present claims and the disclosure of Bauers et al. is the requirement of the triphenylphosphine to be modified with a polar group.

Ostoj-Starzewski et al. disclose a process to polymerize ethylene for moulded article or film in the presence of a nickel-containing catalyst which is prepared by reacting a nickel compound with a mixture of a quinoid compound and a tertiary phosphine of  $(R^7)(R^8)(R^9)P$ , wherein  $R^7$ ,  $R^8$ , and  $R^9$  "denote optionally halogen-hydroxyl-,  $C_1$ - $C_{20}$ -alkoxy- or  $C_6$ - $C_{12}$ -aryloxy-substituted  $C_1$ - $C_{20}$ -alkyl,  $C_6$ - $C_{12}$ -aryl ....." (col. 2, lines 21-34 and 54-67; col. 5, lines 47-48). Thus, a conclusion can be drawn that as a component to form a catalyst with the quinoid compound and the nickel compound, polar-group substituted triphenylphosphine is equivalent to and interchangeable with the unsubstituted triphenylphosphine. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace triphenylphosphine in the disclosure of Bauers et al. with the polar-group substituted triphenylphosphine because of equivalence and interchange of substituted and unsubstituted triphenylphosphine and thereby obtain the present invention.

***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William K. Cheung whose telephone number is (571) 272-1097. The examiner can normally be reached on Monday-Friday 9:00AM to 2:00PM; 4:00PM to 8:00PM.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David WU can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



William K. Cheung, Ph. D.

Primary Examiner

October 15, 2007

WILLIAM K. CHEUNG  
PRIMARY EXAMINER